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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,468	09/28/2000	John Bryan Ibbotson	GB919990081US1/1751P	8913

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EXAMINER

PILLAI, NAMITHA

ART UNIT

PAPER NUMBER

2173

DATE MAILED: 08/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/675,468

Applicant(s)

IBBOTSON ET AL.

Examiner

Namitha Pillai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 4-6, 8-9, 13, 16 and 18-20 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by U. S. Patent No. 6,535,883 B1 (Lee et al.).

Referring to claims 1 and 18-20, Lee discloses a tool for graphically defining an expression with a graphic user interface, wherein the user input for defining tree structures comprising a hierarchical series of nodes, and one or more lists comprising a plurality of items, each item being associated with a respective node of an associated tree structure, wherein the tree structure represents an output data structure, as shown in Figure 10, the associated list items being the field names and means for formatting the definition of these field names (column 3, lines 4-19). Lee further discloses an expression generator component (reference number 490, Figure 11), which is adapted to read a graphic definition of an expression provided by a user through said GUI component, the graphic being the node from the tree structure to which these expressions apply (reference number 460, Figure 11), and means for analyzing the graphic definition, wherein an expression is generated based on the structure of each tree and any list items associated with the respective nodes of a tree, wherein the expression which best associates

with the structure of the tree and the placing of the list items is chosen to best express the graphic definition (Figure 11 and column 3, lines 43-53).

Referring to claim 4, Lee discloses that the nodes comprise leaf and branch nodes, with the branch nodes representing complex structured fields and the leaf nodes representing simple fields comprising a string (column 3, lines 5-6).

Referring to claim 5, as seen in Figure 17, Lee discloses that each list item comprises an expression (reference number 500).

Referring to claim 6, Lee discloses that the GUI components (reference number 500, Figure 16), is adapted to allow a user to define a tree structure representing an input data structure wherein any associated list item defines a filtering constraint, as seen by the conditional expressions shown in Figure 16.

Referring to claim 8, Lee discloses as seen in Figure 15, the GUI component adapted to allow a user to define an input tree structure having two or more associated lists, at least one list item from each list comprising an expression from which said expression generator generates a logical OR expression.

Referring to claim 9, Lee discloses allowing the user to graphically link two or more nodes within an input tree structure from which said expression generator generates a logical expression limiting the nodes to equality (reference number 487, Figure 11).

Referring to claim 13, Lee discloses the GUI component adapted to allow the user to define a list item comprising a free variable, the variable being "*field1 name*", which represents the associated tree node within the graphical definition (Figure 13).

Referring to claim 16, Lee discloses that a grammatical definition of the graphic definition is used to generate the expression, the grammatical part being the text-based syntax, which represents the expression from the tree structure, which is the graphic definition (Figure 15).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee.

Referring to claim 12, Lee discloses that the GUI component is adapted to display a list for an output tree under the node that it is associated with (Figure 10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lee's invention such that the list associated with the nodes were displayed to the left of the tree. Placing the list in association with the nodes in the data structure does not change the implementation of the system. It is merely for aesthetic purposes and hence one skilled in the art would have been motivated to place the list on any of the sides of the tree for displaying, including to the left of the tree. Hence, it would have been obvious for one skilled in the art, at the time of the invention to display a list for an output tree to the left of the tree, as opposed to right below the node.

3. Claims 2, 7, 11, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee and U. S. Patent No. 5,555,367 (Premerlani et al.).

Referring to claim 2, Lee does not explicitly disclose the expressions being configured for a database query. Premierlani discloses that the expression is adapted to configure one of a plurality of nodes of a database query (column 1, lines 56-57). It would have been obvious for one skilled in the art, at the time of the invention to learn from Premierlani to have the expressions configured for database querying. Lee discloses creating these expressions for confirming the validity of data for data collection from a system (column 1, lines 8-12). Such a data collection from a system is a form of database querying, and wherein a query would involve such expressions to be created. Hence, the expressions of Lee's invention can be applicable to database querying. One skilled in the art, at the time of the invention would have been motivated to learn from Premierlani to configure the expressions to configure the nodes of a database query.

Referring to claim 7, Lee discloses that more than one tree structure does exist but does not disclose means for the structures to link. Premierlani discloses allowing users to define two tree structures, each having an associated list with at least one list item associated with a first node of a first input tree identifying a second node of a second input tree structure from which an expression joining the two input tree on the nodes are generated (column 1, lines 25-35). Premierlani discloses that the idea of joining two structures is common through querying and is implemented in query languages, as would be the case when an expression joining the two structures is generated. It would have been obvious for one skilled in the art, at the time of the invention to learn from Premierlani for means to join two of the data structures that are referred to in Lee. Lee has means wherein, each of the structure can be displayed at one time but no means for linking them, which could prove advantageous if user wishes to connect the information from tree to another. This implementation gives the system more flexibility, wherein users can link

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more than one structure and the data within these structures providing greater depths for working with the data. Hence, one skilled in the art, at the time of the invention would have been motivated to learn from Premierlani for means for linking the nodes of more than tree structure.

Referring to claim 11, Lee discloses that more than one tree structure, the structures taking in input from users and then being displayed to the screen, thus serving as the input tree and output tree but does not disclose means for the structures to associate with each other. Premierlani discloses an input structure and output structure, each having an associated list, at least one of the list items for the output structure identifying a node of the input tree structure (column 4, lines 35-32 and lines 55-57). It would have been obvious for one skilled in the art, at the time of the invention to learn from Premierlani to have a means for associating the various tree structures. Lee has multiple tree structures, but does not disclose means wherein nodes from one structure are related to another tree structure. Lee has means wherein, each of the structure can be displayed at one time but no means for associating the nodes of each of them, which could prove advantageous if user wishes to connect the information from tree to another. This implementation gives the system more flexibility, wherein users can link more than one structure and the data within these structures providing greater depths for working with the data. Hence, one skilled in the art, at the time of the invention would have been motivated to learn from Premierlani for means for linking the nodes of more than tree structure.

Referring to claim 14, Lee does not disclose means for alerting users to undefined nodes with a wildcard symbol. Premierlani discloses that the GUI component is adapted to allow a user to define a tree structure comprising a node represented by a wildcard symbol with the symbol representing the node and all otherwise undefined sub-structures of the node (Figure 5). Figure 5

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depicts a user being allowed to define a tree with undefined nodes. It would have been obvious for one skilled in the art, at the time of the invention to learn from Premierlani to implement a wildcard symbol with a node, to point out that the substructures of the node that are undefined. Lee discloses setting of the fields in the tree structure, wherein the expressions created are used for validation testing purposes. It is integral that all components of this testing process be covered and hence, any undefined portions of the code must be easily alerted to the user, for its status, so that the user may make changes if necessary. Such a wildcard symbol as is used in Premierlani could prove beneficial for alerting the user to undefined portions of the tree structure. Hence, one skilled in the art, at the time of the invention would have been motivated to learn from Premierlani to implement a wildcard symbol to represent the nodes and its sub-substructures that are undefined.

Referring to claim 15, Premierlani discloses that the GUI component is adapted to allow a user to define a structure comprising a branch node having a substructure comprising one or more defined nodes and a node represented by a wildcard symbol (column 4, lines 11-13 and Figure 2, reference number 32).

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee and Premierlani and further in view of, U. S. Patent No. 6,377,953 B1 (Gawlick et al.).

Referring to claim 3, Lee and Premierlani disclose that the query expression is in code form (Premerlani, Figure 7C) but does not disclose that the expression is in the form of SQL3. Gawlick discloses that SQL is a popular database language with numerous versions, one of them being SQL3 (column 1, lines 23-25). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Premierlani's invention such that the expression

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was an SQL3 expression. Premierlani has disclosed a system that deals with databases and hence the users of such a system would most likely be familiar with popular database languages such as SQL. Gawlick teaches the importance of SQL3 in database programming. One skilled in the art, at the time of the invention, would be motivated to learn from Gawlick to implement the expression so that it would be an SQL3 expression, thereby making it easier for those working in the database technology to be both familiar and accustomed to the language being used.

5. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee and Premierlani and further in view of, U. S. Patent No. 6,476,833 B1 (Moshfeghi).

Referring to claim 17, Lee and Premierlani do disclose that the nodes comprise a filter (column 5, lines 12-13) but do not disclose that it filters XML messages. Moshfeghi discloses the filtering of XML documents (column 3, line 43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lee and Premierlani's invention such that there were a means for filtering XML messages. XML's filtering process according to Moshfeghi is done to parse the content of messages to locate all the linking information for subsequent processing. Lee and Premierlani would need a means for processing the messages concerning the queries submitted by the user. Hence, one skilled in the art, at the time of the invention would be motivated to learn from Moshfeghi to disclose a means for filtering XML documents.

Response to Claim Changes

6. The Examiner acknowledges the Applicant's amendment specifying claims 1 and 18-20. However all the claims are still rejected under 35 U.S.C. 102 and 35 U. S. C. 103 as being previously disclose and as being obvious in view of prior art and disclosures.

Response to Arguments

7. Applicant's arguments filed on 6/4/2003 have been fully considered, but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

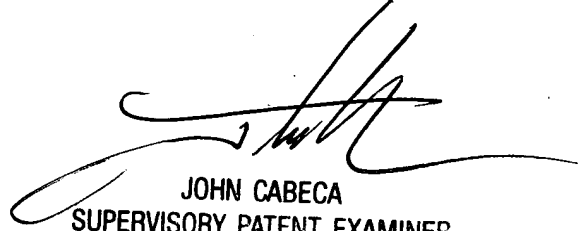
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Namitha Pillai whose telephone number is (703) 305-7691. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca, can be reached on (703) 308-3116. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7238 for regular communications and (703) 746-7240 for After Final Communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Namitha Pillai
Assistant Examiner
Art Unit 2173
August 8, 2003



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